

**REMARKS**

Claims 1-4, 7-11, 13-17, and 20-23 are pending in this application. By this amendment, claims 1-4, 7-11, 13, 14, 16, and 17 are amended, claims 5, 6, 12, 18, and 19 are canceled without prejudice, and new claims 20-23 are added. Support for the amendments is found, for example, in pages 13 and 21 of the specification, FIGS. 11 and 12, and the claims as originally filed. No new matter has been introduced. Favorable reconsideration of the application in light of the foregoing amendments and following comments is respectfully solicited.

**Rejection Under 35 U.S.C. § 112, ¶ 2**

In sections 5 and 6 of the Office Action, claims 1-4, 7-11, 13, 14, and 16 stand rejected under 35 U.S.C. § 112, ¶ 2, as being indefinite, specifically with respect to the recitation of the terms “reliable” and “non-reliable.” The claims are amended to eliminate the use of the above terms. Accordingly, Applicants respectfully submit that the claims are not indefinite under 35 U.S.C. § 112, and request withdrawal of the rejection.

**Allowable Subject Matter**

Applicants appreciate the indication that claims 3, 7, 13, and 16 are directed to allowable subject matter.

In section 11 of the Office Action, independent claims 7 and 13 were indicated as allowable, if amended to overcome the rejection under 35 U.S.C. § 112, ¶ 2. As discussed above, amended claims 7 and 13 overcome the rejection under 35 U.S.C. § 112, ¶ 2. Accordingly, Applicants respectfully request allowance of claims 7 and 13.

In section 10 of the Office Action, claims 3 and 16 were objected to as respectively dependent upon rejected independent claims 1 and 14, but would be allowable if rewritten to overcome the rejections under 35 U.S.C. § 112, ¶ 2, and rewritten in independent form. Applicants respectfully note that it appears that claim 10 should be similarly indicated as allowable, in view of the statement for reasons of allowability set forth in section 12 of the Office Action. As discussed above, the amended claims overcome the rejection under 35 U.S.C. § 112, ¶ 2. Also, as independent claims 1, 8, and 14, upon which the above claims depend, are allowable, as discussed below, Applicants have not rewritten the claims in independent form. Accordingly, Applicants respectfully request withdrawal of any objections to claims 3, 10, and 16, and further request their allowance.

Rejections Under 35 U.S.C. § 103(a)

In section 8 of the Office Action, claims 1, 2, 4, 8, 9, 11, 14, 15, and 17 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Lea et al. (“Algorithm for acoustic prosodic analysis”, hereafter “Lea”) in view of Mermelstein (“Automatic segmentation of speech into syllabic units”, hereafter “Mermelstein”) and Schmidbauer (“Syllable-based Segment-hypotheses Generation in Fluently spoken speech using Gross Articulatory features”, hereafter “Schmidbauer”). In section 9 of the Office Action, claims 5, 6, 12, 18, and 19 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Lea in view of Mermelstein. Applicants respectfully traverse.

Independent claims 1 and 8 each recite, *inter alia*,

estimating means for calculating, from said data, a **frequency spectrum** distribution of said speech waveform along the time axis, and estimating, based on the **frequency spectrum** distribution, a second portion of said speech waveform, for which change is well controlled by said source.

Independent claim 14 recites, *inter alia*,

calculating, from said data, a frequency spectrum distribution of said speech waveform along the time axis, and estimating, based on the frequency spectrum distribution, a second portion of said speech waveform, for which change is well controlled by said source.

Claims 1, 8, and 14 previously recited “a distribution of spectrum.” Page 3, lines 6-15 of the Office Action appears to have broadly construed the previously recited “spectrum,” reading the last plot in Lea, Figure 2 (illustrating “sonorant energy,” according to Lea), and which the Office Action describes as “an energy spectrum plot” (Office Action, page 3, line 14). However, claims 1, 8, and 14 are amended by this Amendment to more clearly and particularly recite “a *frequency* spectrum distribution,” the use of which is not disclosed or suggested by Lea for “calculating . . . a second portion of said speech waveform,” as recited in amended claims 1, 8, and 14.

Mermelstein and Schmidbauer do not bridge the above gap between claims 1, 8, and 14 and Lea. Thus, none of claims 1, 8, and 14 are obvious in view of the cited art. Accordingly, Applicants respectfully request withdrawal of the rejections of independent claims 1, 8, and 14, and dependent claims 2-4, 9-11, and 15-17, as “dependent claims are nonobvious if the independent claims from which they depend are nonobvious.” *In re Fritch*, 972 F.2d 1260, 1266 (Fed. Cir. 1992); accord MPEP § 2143.03 (“If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious”). Additionally, withdrawal of any objections to, and allowance of, dependent claims 3, 10, and 16 is respectfully requested.

New Claims 20-23

New claims 20, 21, and 22 respectively reproduce the subject matter of claims 3, 10, and 16, without recitation of limitations related to “linear predicting means” or “linear prediction analysis.” In view of the statement of reasons for allowability set forth in section 12 of the Office Action, Applicants respectfully submit that new claims 20-22 are recite allowable subject matter, on a basis independent of their dependency on allowable claims 1, 8, and 14. Additionally, as claims 20, 21, and 22 respectively depend upon independent claims 1, 8, and 14, which are allowable for at least the reasons discussed above, Applicants respectfully submit that claims 20-22 are allowable based on their dependency on allowable claims 1, 8, and 14. In view of the above, Applicants respectfully request allowance of claims 20-22.

New claim 23 likewise is dependent on allowable claim 1, and is therefore allowable. Further, the limitations recited in claim 23 are independently distinguished over Lea. In Lea, a syllabic nucleus is decided on the changes of the levels of the sonorant energy and the very low frequency energy (see, e.g., page 42.7.2, right column, third full paragraph). In contrast, claim 23 recites “means for . . . estimating the second portion, based on the frequency spectrum distribution, as a portion where local variance of changes of the frequency spectrum is at a local minimum.” These limitations are not disclosed or suggested by Lea, and Mermelstein and Schmidbauer do not bridge this gap between claims 23 and Lea. In view of the above, Applicants respectfully request allowance of claim 23.

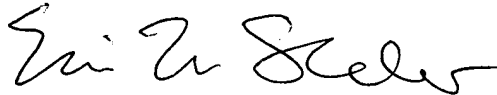
Conclusion

In view of the above remarks, Applicants respectfully submit that the application is in condition for allowance, and respectfully request the Examiner's favorable reconsideration as to allowance. The Examiner is invited to contact the Applicants' representative listed below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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